Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-1639-20-F Plant ID: 1639

Effective Date: 05/26/2020 Expiration Date: 05/31/2025

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Source: MISA Metal Fabricating, Inc
7101 International Dr.
Louisville, KY 40258

Owner: MISA Metal Fabricating, Inc
7101 International Dr.
Louisville, KY 40258

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve months and no later than ninety days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	PM_{10}	HAP	single HAP
Tons/year:	25	12.5	5

Application No.: See **Application and Related Documents** table.

Public Notice Date: 03/10/2020

Permit writer: Rick Williams

Air Pollution Control Officer
5/26/2020

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Permit Revisions and Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
27914-14-F	06/26/2014	08/06/2014	Initial	Entire permit (FEDOOP)
27914-14-F (R1)	N/A	08/30/2016	Admin.	District Address update; E1 removed, Control device efficiencies updated in U-001, U-003, and U-005 along with requirements, added New Oxy Fuel cutting table to IA
O-1639-20-F	03/04/2020 03/10/2020	05/26/2020	Renewal	Permit renewal. Incorporate construction permits C-1639-1001-18-F and C-1639-1002-19-F and remove references to greenhouse gasses in General Condition G10.

Construction Permit Summary

Permit No.	Issue Date	Description
C-1639-1001-18-F	05/24/2018	Automated equipment for grinding steel parts cut from raw plate and associated control equipment.
C-1639-1002-19-F	01/09/2019	Modification of the Koike Aronson VGM-5000 oxyfuel cutting table, E-02 Modification of the Koike Aronson HPR260XD plasma cutter, E-23 Installation of an Armada 3015NT laser cutter, E25, and associated dust collector, C-12

Application and Related Documents

Document Number	Date	Description
oB 22788 22787 22786	06/03/2019	Application
oB 117466	9/13/2019	Follow-up information from plant visit
oB 117467	9/13/2019	Additional follow-up information
oB 119289	09/26/2019	Clarification of paint booth operation
oB 123273	10/30/2019	Request for review of pre-public-comment draft permit

Document Number	Date	Description
oB 124655	11/18/2019	Company comments on draft permit
oB 125322	12/03/2019	APCD response to company comments on draft permit
oB 127403	01/02/2020	Company comments regarding calculation methodology and dust control filter efficiency
oB 127866	01/13/2020	APCD response to company calculation methodology and control efficiency comments
oB 128268	01/16/2020	Company followup to calculation methodology comments
oB 128513	01/21/2020	Additional APCD questions re metal grinding emission factors
oB 130178	01/31/2020	Justification of U5 grinder emission factors.
oB 133371	03/02/2020	Company inquiry regarding draft permit status
oB 133652 & 133660	03/03/2020	Public notice documents
oB 134334 & 134335	03/09/2020	Restart public notice documents
oB 137007 & 137095	04/10/2020 & 04/13/2020	Company comments received during public notice
oB 137386	04/14/2020	District request for clarification of one comment regarding Global Drive facility
oB 137456	04/14/2020	District request for clarification of equipment
oB 137600	04/15/2020	Company clarification of Global Drive facility ownership, responsive to #137386
oB 137629	04/16/2020	Company identification of equipment, responsive to #137456
oB 138589	04/22/2020	Follow-up on application of fallout factor for plasma cutting equipment

Abbreviations and Acronyms

AP-42	- AP-42, *Compilation of Air Pollutant Emission Factors, published by U.S.EPA*
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO_x	- Nitrogen oxides
PM	- Particulate Matter
PM_{10}	- Particulate Matter less than 10 microns
$PM_{2.5}$	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO_2	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

G1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.

G2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.

G3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

G4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.

G5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.

G6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.

G7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result

in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.

G8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.

G9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

G10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM_{10}, $PM_{2.5}$, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; or any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA. Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.

G11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

G12. Unless specified elsewhere in this permit, the owner or operator shall submit semi-annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All compliance reports shall include the following per Regulation 2.17, section 3.5.

- A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
- The signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

Reporting Period	**Report Due Date**
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

G13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.06	Permit Requirements – Other Sources
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

G14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.17	Federally Enforceable District Origin Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

G15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.

G16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.

G17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

Air Pollution Control District
701 W. Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

Plantwide Requirements

Facility Description

MISA Metal Fabrication produces fabricated metal parts, principally from carbon steel plate. MISA has requested emission limits for STAR exemption.

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.17	Federally Enforceable District Origin Operating Permits	All

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions	1, 2

Plantwide Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. HAP

i. The owner or operator shall not allow the plantwide single HAP emissions to equal or exceed 5 tons per 12-consecutive-month period.
[Regulation 2.17, section 5.1 and Regulation 5.00, section 1.13.5.2]

ii. The owner or operator shall not allow the plantwide total HAP emissions to equal or exceed 12.5 tons per 12-consecutive-month period.
[Regulation 2.17, section 5.1 and Regulation 5.00, section 1.13.5.3]

b. NOx

i. The owner or operator shall not allow the plantwide NOx emissions to equal or exceed 25 tons per 12-consecutive-month period.
[Regulation 5.00, section 1.13.5.1]

c. PM/PM_{10}

i. The owner or operator shall not allow the plantwide PM_{10} emissions to equal or exceed 25 tons per 12-consecutive-month period.
[Regulation 2.17, section 5.1 and Regulation 5.00, section 1.13.5.1]

ii. The owner or operator shall not allow the plantwide PM emissions to equal or exceed 25 tons per 12-consecutive-month period.
[Regulation 5.00, section 1.13.5.1]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

i. The owner or operator shall monthly calculate and record the monthly and 12-consecutive-month plantwide emissions for each individual HAP with the potential to exceed established emission limits for each month in the reporting period.

ii. The owner or operator shall monthly calculate and record the monthly and 12-consecutive-month emissions of total HAPs for each month in the reporting period using the methodology described in Attachment A –

Calculation Methodology unless another methodology is approved in writing by the District.

b. NOx

i. The owner or operator shall monthly calculate and record the monthly and 12-consecutive-month plantwide total emissions for NOx for each month in the reporting period using the methodology described in Attachment A – Calculation Methodology unless another methodology is approved in writing by the District.

c. PM/PM_{10}

i. The owner or operator shall monthly calculate and record the monthly and 12-consecutive-month plantwide total emissions for PM and PM_{10} for each month in the reporting period using the methodology described in Attachment A – Calculation Methodology unless another methodology is approved in writing by the District.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

i. Plantwide monthly and 12-consecutive-month total emissions for each individual HAP with the potential to exceed established emission limits and total HAPs for each month in the reporting period.

b. NOx

i. Plantwide monthly and 12-consecutive month total emissions for NOx for each month in the reporting period.

c. PM/PM_{10}

i. Plantwide monthly and 12-consecutive month total emissions for PM and PM_{10} for each month in the reporting period.

Emission Unit U1: Steel Cutting Area

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3
40 CFR 63 Subpart XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	63.11514 - 63.11523

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID [1]
E-02	Oxy-Fuel cutting table: Koike-Aronson VGX5000, Cutting rate 12.5 in/min Originally installed 1998, modified 2018	2018	7.08 40 CFR 63 XXXXXX	N/A	F
E-03	Oxy-Fuel cutting table: Koike-Aronson VGM3100, Cutting rate 12.5 in/min	1998		N/A	F
E-04	Oxy-Fuel cutting table: Koike-Aronson VGM2500, Cutting rate 12.5 in/min	2005		N/A	F
E-05	Oxy-Fuel cutting table: Koike-Aronson IK1500, Cutting rate 15 in/min	1998		N/A	F
E-06	Plasma arc bevel cutter with water table: Koike-Aronson VGM2500, Cutting rate 20 in/min	2013		C-01	F

[1] All control equipment identified in this emission unit vents indoors.

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID [1]
E-07	Laser cutting table with fume control: Armada FO3015NT, Cutting rate 20 in/min	2002	7.08 40 CFR 63 XXXXXX	C-02	F
E-08	Laser cutting table with fume control: Armada FO3015NT, Cutting rate 20 in/min	2008		C-03	F
E-09	Laser cutting table with fume control: Armada FO3015NT, Cutting rate 20 in/min	2008		C-04	F
E-19	Laser cutting table with fume control: Armada FO3015NT, Cutting rate 20 in/min	2009		C-10	F
E-15	Robot plasma cutter: Panasonic GII-1400, Cutting rate 20 in/min	2008		C-01	F
E-24	Oxy-Fuel cutting table Koike Aronson VGM3100 Cutting rate 20 in/min	2015		N/A	F
E-25	Laser cutting table Armada, model: 3015NT Capacity: 20 in/min	2018		C-12	F

Control Devices

Control ID	Description	Control Efficiency [2]
C-01	A.C.T. model 3-12 dust collector	99% [3]
C-02	Torrit model ADFO 2-8 dust collector	0.002 grains/dscf [4]
C-03	Torrit model ADFO 2-8 dust collector	0.002 grains/dscf [4]
C-04	Torrit model ADFO 2-8 dust collector	0.002 grains/dscf [4]
C-10	Torrit model ADFO 2-8 dust collector	0.002 grains/dscf [4]
C-12	Camfil-FARR model GS4P dust collector, rated 2000 cfm	98% [5]

[2] Current manufacturer's guarantees are reproduced in Attachment B. If a guarantee is no longer valid for any reason MISA Metal Fabricating must use the District default value currently accepted for that filter type.

[3] Value based on the manufacturer's guarantee. At beginning of life, the filter efficiency ranges from 76% to 99.6%, depending on particle size. By end of life the filter efficiency exceeds 99.9% for all particle sizes. The efficiency listed in this permit is an estimate of the average efficiency over the life of the filter based on the manufacturer's data.

[4] The guaranteed maximum outlet particle load from the filters for each operating hour, regardless of inlet load, including a zero inlet load, for the life of the filter as specified in the guarantee.

[5] No manufacturer's guarantee has been provided for this dust collector. This is the APCD default control efficiency for cartridge filters.

U1 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. HAP

i. See the Plantwide HAP requirements

ii. The owner or operator shall implement management practices to minimize emissions of MFHAP as specified in paragraphs (b)(1) and (2) of 40 CFR 60 Subpart XXXXXX for each machining operation that uses materials that contain MFHAP, as defined in 40 CFR 63.11522, or has the potential to emit MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP. [40 CFR 63.11516(b)]

(1) The owner or operator shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and [40 CFR 63.11516(b)(1)]

(2) The owner or operator shall operate all equipment associated with machining according to manufacturer's instructions. [40 CFR 63.11516(b)(2)]

b. Opacity

i. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. [Regulation 7.08, section 3.1.1]

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr for each emission point.[6] [Regulation 7.08, section 3.1.2]

iii. The owner or operator shall maintain the pressure drop across the C-01 dust collector between 0.9 and 4.0 inches water column at all times the dust collector is in operation. [Regulation 2.17, section 5.1]

iv. The owner or operator shall maintain operation of the C-02, C-03, C-04 and C-10 dust collectors as follows: [Regulation 2.17, section 5.1]

(1) The pressure drop across the filters shall not exceed 6.0 inches water column,

[6] The uncontrolled potential PM emissions of each cutter cannot exceed the emission limit of 2.34 lb/hr.

(2) The filters shall not be in place for more than 4000 operating hours.

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

i. See the Plantwide HAP requirements.

ii. *Visual determination of fugitive emissions, general*. Visual determinations of fugitive emissions shall be performed according to the procedures of EPA Method 22, of 40 CFR part 60, Appendix A-7. The owner or operator shall conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test shall be at least fifteen minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen minute period. [40 CFR 63.11517(a)]

iii. *Visual determination of fugitive emissions, graduated schedule*. Visual determinations of fugitive emissions shall be performed in accordance with the paragraph above according to the following schedule.
[40 CFR 63.11517(b)]

(1) *Daily Method 22 Testing*. The owner or operator shall perform visual determinations of fugitive emissions once per day, on each day the process is in operation, during operation of the process.
[40 CFR 63.11517(b))(1)]

(2) *Weekly Method 22 Testing.* If there are no visible fugitive emissions detected in ten consecutive daily tests, the frequency may be reduced to testing once every calendar week (five work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume testing of that operation once per day during each day that the process is in operation.
[40 CFR 63.11517(b)(2)]

(3) *Monthly Method 22 Testing.* If there are no visible fugitive emissions detected in four consecutive weekly tests, the frequency may be reduced to testing once every calendar month (twenty-one (21) work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume weekly testing. [40 CFR 63.11517(b)(3)]

(4) *Quarterly Method 22 Testing*. If there are no visible fugitive emissions detected in three consecutive monthly tests, the frequency may be reduced to testing once every three calendar months (sixty

work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume monthly testing. [40 CFR 63.11517(b)(4)]

iv. The owner or operator shall collect and maintain records of the data and information specified in paragraphs (c)(1) through (c)(13) of 40 CFR 63, subpart XXXXXX, according to the requirements in paragraph (c)(14) of 40 CFR 63, subpart XXXXXX. [40 CFR 63.11519(c)]

(1) The owner or operator shall maintain information specified in the following paragraphs. [40 CFR 63.11519(c)(1)]

(a) A copy of each notification and report that is submitted to comply with this subpart, and the documentation supporting each notification and report. [40 CFR 63.11519(c)(1)(i)]

(b) Records of the applicability determinations listing equipment included in its affected source, as well as any changes and on what date they occurred. [40 CFR 63.11519(c)(1)(ii)]

(2) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of fugitive emissions. [40 CFR 63.11519(c)(2)]

(a) The date of every visual determination of fugitive emissions; [40 CFR 63.11519(c)(2)(i)]

(b) A description of any corrective action taken subsequent to the test; and [40 CFR 63.11519(c)(2)(ii)]

(c) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions. [40 CFR 63.11519(c)(2)(iii)]

(3) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(c)(3)]

(a) The date of every visual determination of emissions opacity; [40 CFR 63.11519(c)(3)(i)]

(b) The average of the six (6) minute opacities measured by the test; and [40 CFR 63.11519(c)(3)(ii)]

(c) A description of any corrective action taken subsequent to the test. [40 CFR 63.11519(c)(3)(iii)]

(4) The owner or operator shall maintain a record of the manufacturer's specifications for the control devices. [40 CFR 63.11519(c)(4)]

(5) If the owner or operator complies with this subpart by operating any equipment according to manufacturer's instructions, the owner or

operator shall maintain a copy of these instructions.
[40 CFR 63.11519(c)(13)]

(6) The owner or operator shall maintain records according to the following requirements. [40 CFR 63.11519(c)(15)]

(a) Records shall be in a form suitable and readily available for expeditious review. Where appropriate, the records shall be maintained as electronic spreadsheets or in a database.
[40 CFR 63.11519(c)(15)(i)]

(b) Records shall be retained for five years following the date of each occurrence, measurement, corrective action, report, or record. [40 CFR 63.11519(c)(15)(ii)]

(c) Records shall be retained on-site for at least two years after the date of each occurrence, measurement, corrective action, report, or record. The owner or operator may choose to keep the records off-site for the remaining three years.
[40 CFR 63.11519(c)(15)(iii)]

b. Opacity

i. Monitoring and recordkeeping requirements are incorporated in the federal HAP monitoring requirements. No additional monitoring or recordkeeping is required.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall daily maintain records of the hours of operation for C-01 – C-04 and C-10.

iii. The owner or operator shall daily monitor and record the pressure drop across the filters for control device C-01.

(1) A log recording the date, pressure reading and identification of the person making the log entry shall be maintained.

(2) Before the differential pressure reaches 4 inches water column the filters must be changed. The date the filters are changed and the reason for the change must be entered in the equipment log.

(3) If the differential pressure should be below 0.9 inches water column during normal operation, owner or operator must conduct an investigation to determine the cause of the low pressure reading.

(a) The cause of the low pressure must be recorded in the equipment log.

(b) The owner or operator will assume that the control equipment has been bypassed since the last normal pressure reading and calculate emissions based on the uncontrolled emission rate from that time until the condition is corrected.

iv. The owner or operator shall daily monitor and record the pressure drop across the filters and the hours of operation for control devices C-02, C-03, C-04, and C-10.

(1) A log recording the date, pressure reading, cumulative hours of operation since the last filter change, days since shipment of the filter cartridges from the manufacturer, and identification of the person making the log entry shall be maintained.

(2) The filters must be changed before:

(a) The differential pressure reaches 6 inches water column,

(b) 4000 hours of operation.

(3) The date of filter change, the reason for the change, and the person performing the change must be entered in the equipment log.

v. The owner or operator shall maintain a copy of all manufacturer's filter performance guarantees and provide a true copy to the District upon request. Any changes in filter manufacturer, performance, or filter identification must be supported by a new manufacturer's guarantee, submitted to and approved by the District in writing, prior to use of the new filter. Otherwise the District-default efficiency or other efficiency supported by on-site stack testing must be used.

vi. The owner or operator shall daily maintain records for all processes and control equipment of any periods of time where the process was operating and the respective control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

vii. If there is any time that a control device is bypassed or not in operation when the controlled process is operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) PM emissions during the bypass in lb/hr;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

viii. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of each dust collector for signs of damage, air leakage, corrosion, etc. and repair as needed. The owner or operator shall maintain monthly records of these inspections of the structural and mechanical integrity of the baghouses. The records shall include:

(1) the date of the inspection,

(2) the name of the person that performed the inspection,

(3) identification and description of any equipment defects observed, and

(4) the date of repair or replacement of defective components.

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall submit the annual certification and compliance report containing the following information specified in paragraphs (b)(4)(i) through (b)(4)(iii) of 40 CFR 63, subpart XXXXXX and the information specified in paragraphs (b)(5) through (b)(7) of 40 CFR 63, subpart XXXXXX, that is applicable to each affected source. (40 CFR 63.11519(b)(4))

(1) The company name and address; [40 CFR 63.11519(b)(4)(i)]

(2) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and [40 CFR 63.11519(b)(4)(ii)]

(3) The date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
[40 CFR 63.11519(b)(4)(iii)]

iii. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of fugitive emissions. (40 CFR 63.11519(b)(5))

(1) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
[40 CFR 63.11519(b)(5)(i)]

(2) A description of the corrective actions taken subsequent to the test; and [40 CFR 63.11519(b)(5)(ii)]

(3) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.
[40 CFR 63.11519(b)(5)(iii)]

iv. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(b)(6)]

(1) The date of every visual determination of emissions opacity;
[40 CFR 63.11519(b)(6)(i)]

(2) The average of the six minute opacities measured by the test; and
[40 CFR 63.11519(b)(6)(ii)]

(3) A description of any corrective action taken subsequent to the test.
[40 CFR 63.11519(b)(6)(iii)]

v. The owner or operator shall prepare an exceedance report containing the following information whenever the average of the six minute average opacities recorded during a visual determination of emissions opacity exceeds 20%. This report shall be submitted along with the annual certification and compliance report. [40 CFR 63.11519(b)(8)]

(1) The date on which the exceedance occurred; and
[40 CFR 63.11519(b)(8)(A)]

(2) The average of the six (6) minute average opacities recorded during the visual determination of emissions opacity.
[40 CFR 63.11519(b)(8)(B)]

b. Opacity

i. Reporting requirements are incorporated in the federal HAP reporting requirements.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. Report each day when a pressure drop reading was missed.

iii. Report any pressure drop across any baghouse that was outside the prescribed range; and

iv. Describe any corrective actions taken due to pressure drop across any baghouse filter being outside of the prescribed range for that filter.

v. Any deviation from the requirement of performing monthly visual inspection of the structural and mechanical integrity of the dust collectors. The report shall include the following:

(1) Emission Unit ID and Emission Point ID numbers;

(2) The date of each missed filter inspection.

vi. Any deviation from the requirement to use the associated baghouses at all times the process is in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of PM emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the baghouse bypass and measures implemented to prevent reoccurrence of the bypass.

Emission Unit U2: Spray Booth Area

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3
7.59	Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations	1, 2, 3, 4, 6, 7
40 CFR 63 Subpart XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	63.11514 - 63.11523

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E-10	Spray booth: Global Finishing Systems IFPX-886	2007	7.08, 7.59 40 CFR 63 Subpart XXXXXX	C-05	S-01
E-11	Spray booth drying enclosure: Dri-Quick 32-BR60-1500C electric oven	2008	7.08, 7.59	N/A	S-04

Control Devices

Control ID	Description	Control Efficiency
C-05	Global Finishing Systems IFPX-886 dry panel filters	90%

U2 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall not use any spray application coatings, additives, catalyst, solvents, or thinners containing target HAP compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), or perform any paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), in the paint removal process.[7] [40 CFR 63.11514(b)(4)]

b. Opacity

i. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. [Regulation 7.08, section 3.1.1]

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr for each emission point based on actual operating hours in a calendar day.[8,9] [Regulation 7.08, section 3.1.2]

d. VOC

i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from this spray booth to exceed 5 tons during any 12-consecutive-month period. [Regulation 7.59, section 5.2]

OR

[7] The equipment or processes covered by this permit are not currently subject to the standards of the NESHAP, 40 CFR 63 Subpart XXXXXX, due to the absence of the target metal HAPs. A request was made on 24 March 2014 to exclude regulation 40 CFR 63 Subpart XXXXXX from the permit.

[8] Using the minimum spray gun transfer efficiency of 65%, and the percent solids of the material (52%), this PM emission limit cannot be exceeded.

[9] MISA Metal Fabrication uses both HVLP and electrostatic spray guns. The assumed minimum transfer efficiency for both types of gun is 65%.

ii. No coating shall be used with a VOC content, as applied, in excess of the following limits during a calendar month averaging period: [Regulation 7.59, section 3.1]

Coating	VOC maximum	
	lb/gal	kg/l
Clear coatings	4.3	0.52
Air-dried coatings	3.5	0.52
Extreme performance coatings	3.5	0.42
All other coatings	3.0	0.36

Table 1. Allowable maximum average VOC content if VOC emissions exceed 5 tons per year.

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall keep a record of the MSDS/SDS for each raw material. [40 CFR 63.11514(b)]

b. Opacity

i. The owner or operator shall inspect the filters in the paint booth(s) at least monthly to ensure proper installment (i.e. proper alignment/placement, gaps, etc.) and replace as needed.

ii. The owner or operator shall keep a record that shows the date and the name of the person who inspected the filters and if filters were replaced.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

d. VOC

i. An owner or operator of an affected facility subject to this regulation shall maintain records that include, but not be limited to, the following: [Regulation 7.59, section 6.1]

(1) The regulation and section number applicable to the affected facility for which the records are being maintained,

(2) The application method and substrate type (metal, plastic, etc.),

(3) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt compounds) used at each point of application during the averaging period.

(4) The VOC content as applied in each coating and solvent,

(5) The date, or usage record period, for each application of coating and solvent,

(6) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during the averaging period.

ii. The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24. [Regulation 7.59, section 6.2]

iii. The owner or operator shall, monthly, record the total amount used in gallons of each coating, solvent, cleaner, etc. and calculate the amount of VOC containing material used during the 12-consecutive-month period.

iv. The owner or operator can demonstrate compliance VOC 5-ton emission limit by demonstrating that the VOC-containing-material usage is less than 1,250 gallons during the 12-consecutive-month period. [10] If the usage rate of VOC containing materials exceeds 1,250 gallons per 12-month period, the owner or operator shall

(1) calculate the VOC emissions during the 12-consecutive-month period or show that all coating materials used meet the VOC-content limit in Table 1 in the VOC Standards for this emission unit.

OR

(2) demonstrate that all coating materials used during the period meet the VOC-content standards shown in Table 1.

[10] Calculations demonstrate that the 1,250 gallons VOC containing material usage will ensure the VOC emissions less than 5 tons during the 12 consecutive month period. Therefore, in lieu of calculating VOC emissions, the company can demonstrate compliance with the VOC 5-ton emission limit. if the VOC containing material is less than 1,250 gallons during the 12 consecutive month period.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

i. See the Plantwide HAP requirements.

ii. There are no routine compliance reporting requirements.

b. Opacity

i. Any deviation from the requirement to perform the monthly inspection of the filters during a reporting period. The report shall include the following:

(1) Emission Unit ID and Emission Point ID numbers;

(2) The date of each missed filter inspection.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

d. VOC

i. Identification of all periods of exceedances of the emission standard for each emission process including the quantity of excess emissions; and

ii. Description of any corrective action taken for each exceedance.

Emission Unit U3: Shot Blast Area

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
40 CFR 63 Subpart XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	63.11514 - 63.11523

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E-12	Rotary Shot Blast w/Dust Collector: Pangborn; ES2019-5030123; Capacity: 56,000 lb/hr	2007	7.08 40 CFR 63Subpart XXXXXX	C-06	S-02
E-14	Rotary Shot Blast w/Dust Collector Pangborn; ES2019-5030123; Capacity: 56,000 lb/hr	2013		C-07	S-03

Control Devices

Control ID	Description	Control Efficiency[11]
C-06	Pangborn Torrit; Model PC02-8 dust collector	0.002 grains/scf [12]
C-07	Baghouse: Camfil-FARR; Model: GS 12SQ	0.002 grains/scf [13]

[11] Current manufacturer's guarantees are reproduced in Attachment B. If a guarantee is no longer valid for any reason MISA Metal Fabricating must use the District default value currently accepted for that filter type.

[12] The guaranteed maximum outlet particle load from the filters for each operating hour, regardless of inlet load, including a zero inlet load, for the life of the filter as specified in the Donaldson guarantee.

[13] The guaranteed maximum outlet particle load from the filters for each operating hour, regardless of inlet load, including a zero inlet load, for the life of the filter as specified in the Camfil guarantee.

U3 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall comply with the requirements in paragraph (a)(2) of 40 CFR 63 Subpart XXXXXX for each dry abrasive blasting operation that uses materials containing Metal Fabrication and Finishing HAPs (MFHAP), as defined in §63.11522, or has the potential to emit MFHAP. The requirements do not apply when abrasive blasting operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.
[40 CFR 63.11516(a)]

(1) The owner or operator shall capture emissions and vent them to a filtration control device. You must operate the filtration control device according to manufacturer's instructions, and you must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices. [(40 CFR 63.11516(a)(2)(i)]

(2) The owner or operator shall implement the following management practices to minimize emissions of MFHAP.
[40 CFR 63.11516(a)(2)(ii)]

(a) The owner or operator shall take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and
[40 CFR 63.11516(a)(2)(ii)(A)]

(b) The owner or operator shall enclose dusty abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive materials; and
[40 CFR 63.11516(a)(2)(ii)(B)]

(c) The owner or operator shall operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions.
[40 CFR 63.11516(a)(2)(ii)(C)]

b. Opacity

i. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. [Regulation 7.08, section 3.1.1]

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall not allow PM emissions to exceed 28.46 lb/hr for each emission point based on actual operating hours in a calendar day.[14] [Regulation 7.08, section 3.1.2]

iii. The owner or operator shall maintain operation of C-06 dust collector as follows: [Regulation 2.17, section 5.1]

(1) The pressure drop across the filters shall not exceed 6.0 inches water column,

(2) The filters shall not be in place for more than 4000 operating hours.

iv. The owner or operator shall maintain the pressure drop across baghouse C-07 between 1.5" and 4.0" water column. [Regulation 2.17, section 5.1]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

i. See the Plantwide HAP requirements.

ii. *Visual determination of fugitive emissions, general*. Visual determinations of fugitive emissions shall be performed according to the procedures of EPA Method 22, of 40 CFR part 60, Appendix A-7. The owner or operator shall conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test shall be at least fifteen minutes, and visible emissions will be considered to be present if they are detected for more than six (6) minutes of the fifteen (15) minute period. [40 CFR 63.11517(a)]

iii. *Visual determination of fugitive emissions, graduated schedule*. Visual determinations of fugitive emissions shall be performed in accordance with the paragraph above according to the following schedule.
[40 CFR 63.11517(b)]

(1) *Daily Method 22 Testing.* The owner or operator shall perform visual determinations of fugitive emissions once per day, on each day the process is in operation, during operation of the process.
[40 CFR 63.11517(b))(1)]

[14] This equipment cannot exceed the PM emission standard when the control device is operating.

(2) *Weekly Method 22 Testing.* If there are no visible fugitive emissions detected in ten consecutive daily tests, the frequency may be reduced to testing once every calendar week (five work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume testing of that operation once per day during each day that the process is in operation. [40 CFR 63.11517(b)(2)]

(3) *Monthly Method 22 Testing.* If there are no visible fugitive emissions detected in four consecutive weekly tests, the frequency may be reduced to testing once every calendar month (twenty-one work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume weekly testing. [40 CFR 63.11517(b)(3)]

(4) *Quarterly Method 22 Testing*. If there are no visible fugitive emissions detected in three consecutive monthly tests, the frequency may be reduced to testing once every three calendar months (sixty work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume monthly testing. [40 CFR 63.11517(b)(4)]

iv. The owner or operator shall collect and maintain records of the data and information specified in paragraphs (c)(1) through (c)(13) of 40 CFR 63, subpart XXXXXX, according to the requirements in paragraph (c)(14) of 40 CFR 63, subpart XXXXXX. [40 CFR 63.11519(c)]

(1) The owner or operator shall maintain information specified in the following paragraphs. [(40 CFR 63.11519(c)(1)]

(a) A copy of each notification and report that is submitted to comply with this subpart, and the documentation supporting each notification and report.
[40 CFR 63.11519(c)(1)(i)]

(b) Records of the applicability determinations listing equipment included in its affected source, as well as any changes and on what date they occurred.
[40 CFR 63.11519(c)(1)(ii)]

(2) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of fugitive emissions. [40 CFR 63.11519(c)(2)]

(a) The date of every visual determination of fugitive emissions;
[40 CFR 63.11519(c)(2)(i)]

(b) A description of any corrective action taken subsequent to the test; and [40 CFR 63.11519(c)(2)(ii)]

(c) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions. [40 CFR 63.11519(c)(2)(iii)]

(3) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(c)(3)]

(a) The date of every visual determination of emissions opacity; [40 CFR 63.11519(c)(3)(i)]

(b) The average of the six minute opacities measured by the test; and [40 CFR 63.11519(c)(3)(ii)]

(c) A description of any corrective action taken subsequent to the test. [40 CFR 63.11519(c)(3)(iii)]

(4) The owner or operator shall maintain a record of the manufacturer's specifications for the control devices. [40 CFR 63.11519(c)(4)]

(5) If the owner or operator complies with this subpart by operating any equipment according to manufacturer's instructions, the owner or operator shall maintain a copy of these instructions. [40 CFR 63.11519(c)(13)]

(6) The owner or operator shall maintain records according to the following requirements. [40 CFR 63.11519(c)(15)]

(a) Records shall be in a form suitable and readily available for expeditious review. Where appropriate, the records shall be maintained as electronic spreadsheets or in a database. [40 CFR 63.11519(c)(15)(i)]

(b) Records shall be retained for five years following the date of each occurrence, measurement, corrective action, report, or record. [40 CFR 63.11519(c)(15)(ii)]

(c) Records shall be retained on-site for at least two years after the date of each occurrence, measurement, corrective action, report, or record. The owner or operator may choose to keep the records off-site for the remaining three years. [40 CFR 63.11519(c)(15)(iii)]

b. Opacity

i. Monitoring and recordkeeping required for HAP compliance will assure demonstration of compliance with the opacity standards. No additional monitoring or recordkeeping is required.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall daily maintain records of the hours of operation.

iii. The owner or operator shall daily maintain records of the hours of operation for control devices C-06 and C-07.

iv. The owner or operator shall daily monitor and record the pressure drop across the filters and the hours of operation for control devices C-06.

(1) A log recording the date, pressure reading, cumulative hours of operation, days since shipment of the filter cartridges from the manufacturer, and identification of the person making the log entry shall be maintained.

(2) The filters must be changed before:

(a) The differential pressure reaches 6 inches water column,

(b) 4000 hours of operation.

(3) The date of filter change, the reason for the change, and the person performing the change must be entered in the equipment log.

v. The owner or operator shall daily monitor and record the pressure drop across the filters for control device C-07.

(1) A log recording the date, pressure reading and identification of the person making the log entry shall be maintained.

(2) Before the differential pressure reaches 4 inches water column the filters must be changed. The date the filters are changed and the reason for the change must be entered in the equipment log.

(3) If the differential pressure should be below 1.5 inches water column during normal operation, owner or operator must conduct an investigation to determine the cause of the low pressure reading.

(a) The cause of the low pressure must be recorded in the equipment log.

(b) The owner or operator will assume that the control equipment has been bypassed since the last normal pressure reading and calculate emissions based on the uncontrolled emission rate from that time until the condition is corrected.

vi. The owner or operator shall maintain a copy of all manufacturer's filter performance guarantees and provide a true copy to the District upon request. Any changes in filter manufacturer, performance, or filter identification must be supported by a new manufacturer's guarantee, submitted to and approved by the District in writing, prior to use of the new filter. Otherwise the District-default efficiency or other efficiency supported by on-site stack testing must be used.

vii. The owner or operator shall maintain daily records of any periods of time where the process was operating, and the respective control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

viii. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) PM emissions for each hour during the bypass in lb/hr;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

ix. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of the dust collector for signs of damage, air leakage, corrosion, etc. and repair as needed. The owner or operator shall maintain monthly records of these inspections of the structural and mechanical integrity of the baghouses. The records shall include:

(1) the date of the inspection,

(2) the name of the person that performed the inspection,

(3) identification and description of any equipment defects observed, and

(4) the date of repair or replacement of defective components.

S3. Reporting

[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition G12:

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall submit the annual certification and compliance report containing the following information specified in paragraphs (b)(4)(i) through (b)(4)(iii) of 40 CFR 63, subpart XXXXXX and the information specified in paragraphs (b)(5) through (b)(7) of 40 CFR 63, subpart XXXXXX, that is applicable to each affected source.
[40 CFR 63.11519(b)(4)]

(1) The company name and address; [40 CFR 63.11519(b)(4)(i)]

(2) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and
[40 CFR 63.11519(b)(4)(ii)]

(3) The date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
[40 CFR 63.11519(b)(4)(iii)]

iii. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of fugitive emissions. [40 CFR 63.11519(b)(5)]

(1) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
[40 CFR 63.11519(b)(5)(i)]

(2) A description of the corrective actions taken subsequent to the test; and [40 CFR 63.11519(b)(5)(ii)]

(3) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.
[40 CFR 63.11519(b)(5)(iii)]

iv. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(b)(6)]

(1) The date of every visual determination of emissions opacity; [40 CFR 63.11519(b)(6)(i)]

(2) The average of the six minute opacities measured by the test; and [40 CFR 63.11519(b)(6)(ii)]

(3) A description of any corrective action taken subsequent to the test. [40 CFR 63.11519(b)(6)(iii)]

v. The owner or operator shall prepare an exceedance report containing the following information whenever the average of the six-minute average opacities recorded during a visual determination of emissions opacity exceeds twenty percent. This report shall be submitted along with the annual certification and compliance report. [40 CFR 63.11519(b)(8)]

(1) The date on which the exceedance occurred; and [40 CFR 63.11519(b)(8)(A)]

(2) The average of the six (6) minute average opacities recorded during the visual determination of emissions opacity. [40 CFR 63.11519(b)(8)(B)]

b. Opacity

i. Reporting required for HAP compliance will assure demonstration of compliance with the opacity standards. No additional reporting is required.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. Report each day when a pressure drop reading was missed.

iii. Report any pressure drop across any baghouse that was outside the prescribed range; and

iv. Describe any corrective actions taken due to pressure drop across any baghouse filter being outside of the prescribed range for that filter.

v. Any deviation from the requirement of performing monthly visual inspection of the structural and mechanical integrity of the dust collectors. The report shall include the following:

(1) Emission Unit ID and Emission Point ID numbers;

(2) The date of each missed filter inspection.

vi. Any deviation from the requirement to use the associated baghouses at all times the process is in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of PM emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the baghouse bypass and measures implemented to prevent reoccurrence of the bypass.

Emission Unit IA-U4: Cold Solvent Wash

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1, 2, 3, 4.1, 4.2

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
E-13	Parts Washer, cold solvent, with secondary reservoir (Maintenance Area); capacity: 55 gallons	2004	6.18	N/A	F
E-17	Parts Washer, cold solvent, with secondary reservoir (Paint Booth Area); capacity: 15 gallons	2011			

U4 Specific Conditions

S1. Standards
[Regulation 2.17, section 5.1]

a. VOC

i. For cold solvent cleaners (parts washers) the owner or operator shall install, maintain, and operate the control equipment as follows:
[Regulation 6.18, section 4]

(1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. [Regulation 6.18, section 4.1.1]

(2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. [Regulation 6.18, section 4.1.2]

(3) A permanent, conspicuous label summarizing the operating requirements shall be installed on or near the cold cleaner.
[Regulation 6.18, section 4.1.3]

(4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner.
[Regulation 6.18, section 4.1.4]

(5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner.
[Regulation 6.18, section 4.1.6]

(6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks.
[Regulation 6.18, section 4.1.8]

ii. For cold solvent cleaners (parts washers) the owner or operator shall observe at all times the following operating requirements:
[Regulation 6.18, section 4.2]

(1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste

solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. [Regulation 6.18, section 4.2.1]

(2) The solvent level in the cold cleaner shall not exceed the fill line. [Regulation 6.18, section 4.2.2]

(3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. [Regulation 6.18, section 4.2.3]

(4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. [Regulation 6.18, section 4.2.4]

(5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. [Regulation 6.18, section 4.2.5]

(6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. [Regulation 6.18, section 4.2.6]

(7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. [Regulation 6.18, section 4.2.7]

iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm_{Hg} (0.019 psi) at 20º C (68º F). [Regulation 6.18, section 4.3.2]

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. VOC

i. For cold solvent cleaners (parts washers) the owner or operator shall maintain records that include the following for each purchase: [Regulation 6.18, section 4.4.2]

(1) The name and address of the solvent supplier;

(2) The date of the purchase;

(3) The type of the solvent; and

(4) The vapor pressure of the solvent, measured in mm_{Hg} at 20° C (68° F).

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report in accordance with General Condition G12.

Emission Unit U5: Grinding and Welding Operation

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
40 CFR 63 Subpart XXXXXX	National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	63.11514 - 63.11523

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants	1, 2, 4

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID [15]
E-16A [16]	ARKU "Edge Breaker 4000" robotic grinding station	2016	7.08 40 CFR 63 Subpart XXXXXX	C-08	F
E-18	Grind Line (2 Stations) Custom-built	2010		C-09 [17]	F
E-20	Manual Repair grind (welding)	2008		N/A	F
E-21	Hand welding (9 stations) Capacity: 5 lb/hr	2010		N/A	F
E-22	Robot Welder; Panasonic: GII-1600; Capacity: 7 lb/hr	2009		C-11	F
E-23	Robot Welder; Panasonic: WG-1400; Capacity: 5 lb/hr	2014		N/A	F

[15] All control equipment identified in this emission unit vents indoors.
[16] This robotic equipment replaces the original E-16 emission equipment which was a 2-station manual grinding line.
[17] Each grinder has a separate dust collector of identical design.

Control Devices

Control ID	Description	Control Efficiency[18]
C-08	Donaldson Torit Downflo Oval model DF02-8 dust collector (rated 4800 cfm)	0.002 grains/scf [19]
C-09	Baileigh Industrial MDC-1800 (rated 1450 cfm)	95% [20]
C-11	Electrostatic Mist Collector; UAS Smog Hog: SHN-20 (rated 2000 cfm)	95% [20]

[18] Current manufacturer's guarantees are reproduced in Attachment B. If a guarantee is no longer valid for any reason MISA Metal Fabricating must use the District default value currently accepted for that filter type.
[19] The guaranteed maximum outlet particle load from the filters for each operating hour, regardless of inlet load, including a zero inlet load, for the life of the filter as specified in the Donaldson guarantee.
[20] Default control efficiency for non-cartridge dust-control filter.

U5 Specific Conditions

S1. Standards

[Regulation 2.17, section 5.1]

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator must comply with the requirements of paragraphs (c)(1) and (2) of this section for each dry grinding and dry polishing with machines operation (E-16a, E-18, E-20) that uses materials that contain MFHAP[21] or has the potential to emit MFHAP.[22] These requirements do not apply when dry grinding and dry polishing operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP. [40 CFR 63.11516(c)]

(1) You must capture emissions and vent them to a filtration control device. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in §63.11519(c)(4), "Notification, recordkeeping, and reporting Requirements." [40 CFR 63.11516(c)(1)]

(2) You must implement management practices to minimize emissions of MFHAP. [40 CFR 63(c)(2)]

(a) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; [40 CFR 63(c)(2)(i)]

(b) You must operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions. [40 CFR 63(c)(2)(ii)]

iii. The owner or operator shall operate all equipment, capture, and control devices associated with welding operations (E-21, E-22, E-23) according to the manufacturer's instructions. [40 CFR 63.11516(f)(1)]

iv. The owner or operator shall comply with the requirements in paragraphs (f)(1) and (2) of 40 CFR 63 Subpart XXXXXX for each welding operation

[21] *Material containing MFHAP* means a material containing one or more MFHAP. Any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing MFHAP.

[22] *Metal fabrication and finishing HAP (MFHAP)* means any compound of the following metals: Cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form, with the exception of lead.

that uses materials containing Metal Fabrication and Finishing HAPs (MFHAP), as defined in §63.11522, or has the potential to emit MFHAP. If the welding affected source uses 2,000 pounds or more per year of welding rod containing one or more MFHAP (calculated on a rolling 12-month basis), the owner or operator shall demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (f)(3) through (f)(8) of 40 CFR 63, subpart XXXXXX. The requirements in paragraphs (f)(1) through (f)(8) do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.[23] [40 CFR 63.11516(f)]

(1) The owner or operator shall capture emissions and vent them to a filtration control device. You must operate the filtration control device according to manufacturer's instructions, and you must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices. [40 CFR 63.11516(f)(1)]

(2) The owner or operator shall implement one or more of the following management practices to minimize emissions of MFHAP, as practicable, while maintaining the required welding quality through the application of sound engineering judgment.
[40 CFR 63.11516(f)(2)]

(a) Use welding processes with reduced fume generation capabilities (e.g., gas metal arc welding (GMAW) – also called metal inert gas welding (MIG));
[40 CFR 63.11516(f)(2)(i)]

(b) Use welding process variations (e.g., pulsed current GMAW), which can reduce fume generation rates;
[40 CFR 63.11516(f)(2)(ii)]

(c) Use welding filler metals, shielding gases, carrier gases, or other process materials which are capable of reduced welding fume generation; [40 CFR 63.11516(f)(2)(iii)]

(d) Optimize welding process variables (e.g., electrode diameter, voltage, amperage, welding angle, shield gas flow rate, travel speed) to reduce the amount of welding fume generated; and [40 CFR 63.11516(f)(4)(iv)]

(e) Use a welding fume capture and control system, operated according to the manufacturer's specifications.
[40 CFR 63.11516(f)(2)(v)]

[23] The District has determined that the welding operation at this facility is subject to Federal Regulation 40 CFR 63, Subpart XXXXXX, as per sections 63.11514(a) and 63.11514(b). These sections state that an area source primarily engaged in "Primary Metal Products Manufacturing" which uses materials containing either 0.1% cadmium, chromium, lead, or nickel, or 1.0% manganese, is subject to 40 CFR 63, Subpart XXXXXX.

(3) *Tier 1 compliance requirements.* The owner or operator shall perform visual determinations of welding fugitive emissions at the primary vent, stack, exit, or opening from the building containing the welding operations. The owner or operator shall keep a record of all visual determinations of fugitive emissions along with any corrective action taken. [40 CFR 63.11516(f)(3)]

(4) *Requirements upon initial detection of visible emissions from welding.* If visible fugitive emissions are detected during any visual determination, the owner or operator shall comply with the following requirements. [40 CFR 63.11516(f)(4)]

(a) The owner or operator shall perform corrective actions that include, but are not limited to, inspection of welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures. After completing such corrective action, the owner or operator shall perform a follow-up inspection for visible fugitive emissions at the primary vent, stack, exit, or opening from the building containing the welding operations. [40 CFR 63.11516(f)(4)(a)]

(b) The owner or operator shall report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, and submit with your annual certification and compliance report.
[40 CFR 63.11516(f)(4)(b)]

(5) *Tier 2 requirements upon subsequent upon detection of visible emissions.* If visible fugitive emissions are detected more than once during any consecutive 12-month period (notwithstanding the results of any follow-up inspections), the owner or operator shall comply with the following requirements. [40 CFR 63.11516(f)(5)]

(a) Within 24 hours of the end of the visual determination of fugitive emissions in which visible fugitive emissions were detected, the owner or operator shall conduct a visual determination of emissions opacity at the primary vent, stack, exit, or opening from the building containing the welding operations. [40 CFR 63.11516(f)(5)(i)]

(b) In lieu of the requirement to perform visual determinations of fugitive emissions with EPA Method 22, the owner or operator shall perform visual determinations of emissions opacity using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations. [40 CFR 63.11516(f)(5)(ii)]

(c) The owner or operator shall keep a record of each visual determination of emissions opacity performed along with any subsequent corrective action taken.
[40 CFR 63.11516(f)(5)(iii)]

(d) The owner or operator shall report the results of all visual determinations of emissions opacity along with any subsequent corrective action taken, and submit with your annual certification and compliance report.
[40 CFR 63.11516(f)(5)(iv)]

(6) *Requirements for opacities less than or equal to 20 percent but greater than zero.* For each visual determination of emissions opacity performed for which the average of the six-minute average opacities recorded is 20 percent or less but greater than zero, the owner or operator shall perform corrective actions, including inspection of all welding fume sources, and evaluation of the proper operation and effectiveness of the management practices or fume control measures. [40 CFR 63.11516(f)(6)]

(7) *Tier 3 requirements for opacities exceeding 20 percent*. For each visual determination of emissions opacity performed for which the average of the six-minute average opacities recorded exceeds 20 percent, the owner or operator shall comply with the following requirements. [40 CFR 63.11516(f)(7)]

(a) The owner or operator shall submit a report of exceedence of 20 percent opacity, along with the annual certification and compliance report. [40 CFR 63.11516(f)(7)(i)]

(b) Within 30 days of the opacity exceedence, the owner or operator shall prepare and implement a Site-Specific Welding Emissions Management Plan. If a Site-Specific Welding Emissions Management Plan already exists at the facility, the owner or operator shall prepare and implement a revised Site-Specific Welding Emissions Management Plan within 30 days. [40 CFR 63.11516(f)(7)(ii)]

(c) During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, the owner or operator shall continue to perform visual determinations of emissions opacity, beginning on a daily schedule using EPA Method 9, at the primary vent, stack, exit, or opening from the building containing the welding operations.
[40 CFR 63.11516(f)(7)(iii)]

(d) During the preparation (or revision) of the Site-Specific Welding Emissions Management Plan, the owner or operator shall keep a record of each visual determination of

emissions of opacity performed.
[40 CFR 63.11516(f)(7)(iv)]

(e) The owner or operator shall include these records in the annual certification and compliance report.
[40 CFR 63.11516(f)(7)(v)]

(8) *Site-Specific Welding Emissions Management Plan.* The Site-Specific Welding Emissions Management Plan shall comply with the following requirements. [40 CFR 63.11516(f)(8)]

(a) The Site-Specific Welding Emissions Management Plan shall contain the following information.
[40 CFR 63.11516(f)(8)(i)]

(i) Company name and address;
[40 CFR 63.11516(f)(8)(i)(A)]

(ii) A list and description of all welding operations which currently comprise the welding affected source; [40 CFR 63.11516(f)(8)(i)(B)]

(iii) A description of all management practices and/or fume control methods in place at the time of the opacity exceedence; [40 CFR 63.11516(f)(8)(i)(C)]

(iv) A list and description of all management practices and/or fume control methods currently employed for the welding affected source;
[40 CFR 63.11516(f)(8)(i)(D)]

(v) A description of additional management practices and/or fume control method to be implemented pursuant to paragraph (f)(7)(ii), and the projected date of implementation; and
[40 CFR 63.11516(f)(8)(i)(E)]

(vi) Any revisions to a Site-Specific Welding Emissions Management Plan shall contain copies of all previous plan entries.
[40 CFR 63.11516(f)(8)(i)(F)]

(b) The owner or operator shall update the Site-Specific Welding Emissions Management Plan annually and submit with the annual certification and compliance report.
[40 CFR 63.11516(f)(8)(ii)]

(c) The owner or operator shall maintain a copy of the current Site-Specific Welding Emissions Management Plan in the company records in a readily-accessible location for inspector review. [40 CFR 63.11516(f)(8)(iii)]

b. Opacity

i. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. [Regulation 7.08, section 3.1.1]

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr for each emission point based on actual operating hours in a calendar day.[24] [Regulation 7.08, section 3.1.2]

iii. The owner or operator shall maintain operation of the C-08 collector as follows: [Regulation 2.17, section 5.1]

(1) The pressure drop across the filters shall not exceed 6.0 inches water column,

(2) The filters shall not be in place for more than 4000 operating hours.

S2. Monitoring and Record Keeping
[Regulation 2.17, section 5.2]

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. HAP

i. See the Plantwide HAP requirements.

ii. The owner or operator shall keep a record of the MSDS for each raw material.

iii. *Visual determination of fugitive emissions, general*. Visual determinations of fugitive emissions shall be performed according to the procedures of EPA Method 22, of 40 CFR part 60, Appendix A-7. The owner or operator shall conduct the EPA Method 22 test while the affected source is operating under normal conditions. The duration of each EPA Method 22 test shall be at least fifteen minutes, and visible emissions will be considered to be present if they are detected for more than six minutes of the fifteen-minute period. [40 CFR 63.11517(a)]

iv. *Visual determination of fugitive emissions, graduated schedule*. Visual determinations of fugitive emissions shall be performed in accordance with

[24] A one-time compliance demonstration has been performed for this equipment and the lb/hr standard cannot be exceeded uncontrolled.

the paragraph above according to the following schedule.
[40 CFR 63.11517(b)]

(1) *Daily Method 22 Testing*. The owner or operator shall perform visual determinations of fugitive emissions once per day, on each day the process is in operation, during operation of the process.
[40 CFR 63.11517(b))(1)]

(2) *Weekly Method 22 Testing.* If there are no visible fugitive emissions detected in ten consecutive daily tests, the frequency may be reduced to testing once every calendar week (five work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume testing of that operation once per day during each day that the process is in operation.
[40 CFR 63.11517(b)(2)]

(3) *Monthly Method 22 Testing.* If there are no visible fugitive emissions detected in four consecutive weekly tests, the frequency may be reduced to testing once every calendar month (twenty-one work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume weekly testing. [40 CFR 63.11517(b)(3)]

(4) *Quarterly Method 22 Testing*. If there are no visible fugitive emissions detected in three consecutive monthly tests, the frequency may be reduced to testing once every three calendar months (sixty work days of operation). If visible fugitive emissions are detected during these tests, the owner or operator shall resume monthly testing. [40 CFR 63.11517(b)(4)]

v. *Visual determination of emissions opacity for welding Tier 2 or 3, general.* Visual determination of emissions opacity shall be performed in accordance with the procedures of EPA Method 9, of 40 CFR part 60, Appendix A-4, and while the affected source is operating under normal conditions. The duration of the EPA Method 9 test shall be thirty minutes.
[40 CFR 63.11517(c)]

vi. *Visual determination of emissions opacity for welding Tier 2 or 3, graduated schedule.* The owner or operator shall perform visual determinations of emissions opacity in accordance with the paragraph above and according to the following schedule. [40 CFR 63.11517(d)]

(1) *Daily Method 9 testing for welding, Tier 2 and 3.* The owner or operator shall perform visual determinations of emissions opacity once per day during each day that the process is in operation.
[40 CFR 63.11517(d)(1)]

(2) *Weekly Method 9 testing for welding Tier 2 and 3.* If the average of the six minute opacities recorded during any of the daily consecutive EPA Method 9 tests does not exceed twenty percent for ten days of

operation of the process, the owner or operator may decrease the frequency of the EPA Method 9 testing to once per five days of consecutive work day operation. If opacity greater than twenty percent is detected during any of these tests, the owner or operator shall resume testing every day of operation of the process.
[40 CFR 63.11517(d)(2)]

(3) *Monthly Method 9 testing for welding Tier 2 and 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 test does not exceed twenty percent for four consecutive weekly tests, the owner or operator may decrease the frequency of the EPA Method 9 testing to once per twenty-one days of operation of the process. If visible emissions opacity greater than twenty percent is detected during any quarterly test, the owner or operator shall resume testing every twenty-one days (month) of operation of the process. [40 CFR 63.11517(d)(3)]

(4) *Quarterly Method 9 testing for welding Tier 2 or 3.* If the average of the six minute opacities recorded during any of the consecutive weekly EPA Method 9 tests does not exceed twenty percent for three consecutive monthly tests, the owner or operator may decrease the frequency of the EPA Method 9 testing to once every one hundred twenty days of operation of the process. If visible opacity emissions greater than twenty percent is detected during any quarterly test, the owner or operator shall resume testing every twenty-one days (month) of operation of the process.
[40 CFR 63.11517(d)(4)]

(5) *Return to Method 22 testing for welding, Tier 2 or 3.* If, after two (2) consecutive months of testing, the average six minute opacities recorded during any of the monthly EPA Method 9 tests does not exceed twenty percent, the owner or operator may resume EPA Method 22 testing. In lieu of this, the owner or operator may elect to continue performing EPA Method 9 testing.
[40 CFR 63.1117(d)(5)]

vii. The owner or operator shall collect and maintain records of the data and information specified in paragraphs (c)(1) through (c)(13) of 40 CFR 63, subpart XXXXXX, according to the requirements in paragraph (c)(14) of 40 CFR 63, subpart XXXXXX. [40 CFR 63.11519(c)]

(1) The owner or operator shall maintain information specified in the following paragraphs. [40 CFR 63.11519(c)(1)]

(a) A copy of each notification and report that is submitted to comply with this subpart, and the documentation supporting each notification and report.
[40 CFR 63.11519(c)(1)(i)]

(b) Records of the applicability determinations listing equipment included in its affected source, as well as any changes and on what date they occurred.
[40 CFR 63.11519(c)(1)(ii)]

(2) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of fugitive emissions. [40 CFR 63.11519(c)(2)]

(a) The date of every visual determination of fugitive emissions; [40 CFR 63.11519(c)(2)(i)]

(b) A description of any corrective action taken subsequent to the test; and [40 CFR 63.11519(c)(2)(ii)]

(c) The date and results of any follow-up visual determination of fugitive emissions performed after the corrective actions. [40 CFR 63.11519(c)(2)(iii)]

(3) The owner or operator shall maintain a record of the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(c)(3)]

(a) The date of every visual determination of emissions opacity; [40 CFR 63.11519(c)(3)(i)]

(b) The average of the six minute opacities measured by the test; and [40 CFR 63.11519(c)(3)(ii)]

(c) A description of any corrective action taken subsequent to the test. [40 CFR 63.11519(c)(3)(iii)]

(4) The owner or operator shall maintain a record of the manufacturer's specifications for the control devices.
[40 CFR 63.11519(c)(4)]

(5) The owner or operator shall maintain a record of each visual determination of emissions opacity performed during the preparation (or revision) of a Site-Specific Welding Emissions Management Plan. [40 CFR 63.11519(c)(11)]

(6) If the owner or operator has been required to prepare a Site-Specific Welding Emissions Management Plan, a copy of the plan shall be maintained in the company's records.
[40 CFR 63.11519(c)(12)]

(7) If the owner or operator complies with this subpart by operating any equipment according to manufacturer's instructions, the owner or operator shall maintain a copy of these instructions.
[40 CFR 63.11519(c)(13)]

(8) If the owner or operator operates a new or existing welding affected source which is not required to comply with the requirements of §63.11516(f)(3) through (f)(8) because it uses less than 2,000

pounds per year of welding rod/wire (on a rolling 12-month basis), the owner or operator shall maintain records demonstrating the welding rod/wire usage on a rolling 12-month basis. [40 CFR 63.11519(c)(14)]

(9) The owner or operator shall maintain records according to the following requirements. [40 CFR 63.11519(c)(15)]

(a) Records shall be in a form suitable and readily available for expeditious review. Where appropriate, the records shall be maintained as electronic spreadsheets or in a database. [40 CFR 63.11519(c)(15)(i)]

(b) Records shall be retained for five (5) years following the date of each occurrence, measurement, corrective action, report, or record. [40 CFR 63.11519(c)(15)(ii)]

(c) Records shall be retained on-site for at least two years after the date of each occurrence, measurement, corrective action, report, or record. The owner or operator may choose to keep the records off-site for the remaining three years. [40 CFR 63.11519(c)(15)(iii)]

b. Opacity

i. Monitoring and recordkeeping required for HAP compliance will assure demonstration of compliance with the opacity standards. No additional monitoring or recordkeeping is required.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. The owner or operator shall daily maintain records of the hours of operation for C-08.

iii. The owner or operator shall daily monitor and record the pressure drop across the filters and the hours of operation for control device C-08.

(1) A log recording the date, pressure reading, hours of operation, days since shipment of the filter cartridges from the manufacturer, and identification of the person making the log entry shall be maintained.

(2) The filters must be changed before:

(a) The differential pressure reaches 6 inches water column,

(b) 4000 hours of operation.

(3) The date of filter change, the reason for the change, and the person performing the change must be entered in the equipment log.

iv. The owner or operator shall daily maintain records of any periods of time where the process E-16A was operating and the C-08 control device was not operating, or a declaration that the control device operated at all times that day when the process was operating.

v. The owner or operator shall maintain a copy of all manufacturer's filter performance guarantees and provide a true copy to the District upon request. Any changes in filter manufacturer, performance, or filter identification must be supported by a new manufacturer's guarantee, submitted to and approved by the District in writing, prior to use of the new filter. Otherwise the District-default efficiency or other efficiency supported by on-site stack testing must be used.

vi. If there is any time that control device C-08 is bypassed or not in operation when the controlled process E-16A is operating, then the owner or operator shall keep a record of the following for each bypass event:

(1) Date;

(2) Start time and stop time;

(3) Identification of the control device and process equipment;

(4) PM emissions during the bypass in lb/hr;

(5) Summary of the cause or reason for each bypass event;

(6) Corrective action taken to minimize the extent or duration of the bypass event; and

(7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

vii. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of each dust collector for signs of damage, air leakage, corrosion, etc. and repair as needed. The owner or operator shall maintain monthly records of these inspections of the structural and mechanical integrity of the baghouses. The records shall include:

(1) the date of the inspection,

(2) the name of the person that performed the inspection,

(3) identification and description of any equipment defects observed, and

(4) the date of repair or replacement of defective components

S3. Reporting
[Regulation 2.17, section 5.2]

The owner or operator shall report the following information, as required by General Condition 12:

a. HAP

i. See the Plantwide HAP requirements.

ii. If you are the owner or operator of an area source in one of the nine metal fabrication and finishing source categories, as defined in §63.11514 … you must submit the Initial Notification required by §63.9(b) "General Provisions," for a new affected source no later than 120 days after initial startup. Your Initial Notification must provide the information specified in paragraphs (a)(1)(i) through (iv) of this section. [40 CFR 63.11519(a)(1)]

(1) The name, address, phone number and e-mail address of the owner and operator; [63.11519(a)(1)(i)]

(2) The address (physical location) of the affected source; [63.11519(a)(1)(ii)]

(3) An identification of the relevant standard (i.e., this subpart); and [63.11519(a)(1)(iii)]

(4) A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed. [63.11519(a)(1)(iv)]

iii. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup. You are required to submit the information specified in paragraphs (a)(2)(i) through (iv) of this section with your notification of compliance status:
[40 CFR 63.11519(a)(2)]

(1) Your company's name and address; [63.11519(a)(2)(i)]

(2) A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart; [63.11519(a)(2)(ii)]

(3) If you operate any spray painting affected sources, the information required by §63.11516(e)(3)(vi)(C), "Compliance demonstration," or §63.11516(e)(4)(ix)(C), "Compliance demonstration," as applicable; and [63.11519(a)(2)(iii)]

(4) The date of the notification of compliance status.
[63.11519(a)(2)(iv)]

iv. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section. The annual certification and compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (b)(3) of this section.
[40 CFR 63.11519(b)(1)]

v. Unless the Administrator[25] has approved or agreed to a different schedule for submission of reports under §63.10(a), "General Provisions," you must prepare and submit each annual certification and compliance report according to the dates specified in paragraphs (b)(2)(i) through (iii) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation. [40 CFR 63.11519(b)(2)]

(1) The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31.
[40 CFR 63.11519(b)(2)(i)]

(2) Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31. [40 CFR 63.11519(b)(2)(ii)]

(3) Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedence has occurred during the year, each annual certification and compliance report must be submitted along with the exceedence reports, and postmarked or delivered no later than January 31.
[40 CFR 63.11519(b)(2)(iii)]

vi. For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, "Title V." [40 CFR 63.11519(b)(3)]

(1) If the permitting authority has established dates for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), "Title V," you may prepare or submit, if required, the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (b)(2)(iii) of this section.
[40 CFR 63.11519(b)(3)(i)]

[25] The EPA has designated the Louisville Metro APCD as the Administrator for these functions. [40 CFR 63.11521(a)]

(2) If an affected source prepares or submits an annual certification and compliance report pursuant to this section along with, or as part of, the monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), "Title V," and the compliance report includes all required information concerning exceedences of any limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same exceedences in the annual monitoring report. However, submission of an annual certification and compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.
[40 CFR 63.11519(b)(3)(ii)]

vii. The owner or operator shall submit the annual certification and compliance report containing the following information specified in paragraphs (b)(4)(i) through (b)(4)(iii) of 40 CFR 63, subpart XXXXXX and the information specified in paragraphs (b)(5) through (b)(7) of 40 CFR 63, subpart XXXXXX, that is applicable to each affected source.[26]
[40 CFR 63.11519(b)(4)]

(1) The company name and address; [40 CFR 63.11519(b)(4)(i)]

(2) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and
[40 CFR 63.11519(b)(4)(ii)]

(3) The date of report and beginning and ending dates of the reporting period. The reporting period is the 12-month period ending on December 31. Note that the information reported for the 12 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
[40 CFR 63.11519(b)(4)(iii)]

viii. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of fugitive emissions. [40 CFR 63.11519(b)(5)]

(1) The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;
[40 CFR 63.11519(b)(5)(i)]

(2) A description of the corrective actions taken subsequent to the test; and [40 CFR 63.11519(b)(5)(ii)]

[26] As required by Federal Regulation 40 CFR 63, Subpart XXXXXX, the Initial Notification and Notification of Compliance Status were submitted to the District on July 26, 2011 and November 15, 2011.

(3) The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions. [40 CFR 63.11519(b)(5)(iii)]

ix. The annual certification and compliance report shall contain the following information for each affected source which performs visual determinations of emissions opacity. [40 CFR 63.11519(b)(6)]

(1) The date of every visual determination of emissions opacity; [40 CFR 63.11519(b)(6)(i)]

(2) The average of the six (6) minute opacities measured by the test; and [40 CFR 63.11519(b)(6)(ii)]

(3) A description of any corrective action taken subsequent to the test. [40 CFR 63.11519(b)(6)(iii)]

x. The owner or operator shall prepare an exceedance report containing the following information whenever the average of the six-minute average opacities recorded during a visual determination of emissions opacity exceeds twenty percent. This report shall be submitted along with the annual certification and compliance report. [40 CFR 63.11519(b)(8)]

(1) The date on which the exceedance occurred; and [40 CFR 63.11519(b)(8)(A)]

(2) The average of the six minute average opacities recorded during the visual determination of emissions opacity. [40 CFR 63.11519(b)(8)(B)]

xi. The owner or operator shall submit a copy of the records of daily visual determinations of emissions recorded and a copy of the Site-Specific Welding Emissions Management Plan and any subsequent revisions to the plan, along with the annual certification and compliance report. [40 CFR 63.11519(b)(9)]

b. Opacity

i. Reporting required for HAP compliance will assure demonstration of compliance with the opacity standards. No additional reporting is required.

c. PM/PM_{10}

i. See the Plantwide PM/PM_{10} requirements.

ii. Report each day when a pressure drop reading was missed.

iii. Report any pressure drop across any baghouse that was outside the prescribed range; and

iv. Describe any corrective actions taken due to pressure drop across any baghouse filter being outside of the prescribed range for that filter.

v. Any deviation from the requirement of performing monthly visual inspection of the structural and mechanical integrity of the dust collectors. The report shall include the following:

(1) Emission Unit ID and Emission Point ID numbers;

(2) The date of each missed filter inspection.

vi. Any deviation from the requirement to use the associated baghouses at all times the process is in operation. The report shall include the following:

(1) The date and duration (including the start and stop time) of each by-pass to the atmosphere;

(2) Calculated quantity of PM emitted, in pounds, for each bypass;

(3) Corrective action taken as a result of the baghouse bypass;

(4) Summary information on the cause or reason for the baghouse bypass and measures implemented to prevent reoccurrence of the bypass.

Insignificant Activities

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
Cold solvent parts cleaners with secondary reservoir (U-4)	2	VOC: 0.62	Regulation 1.02, Appendix A
Direct-fired space heaters [27] Bay 1, 2@ 0.4 MMBtu/hr Bay 2, 6@ 0.3 MMBtu/hr Bay 3, 8@ 0.4 MMBtu/hr Shipping, 9@ 0.2 MMBtu/hr Rooftop, 1@ 0.115 MMBtu/hr Rooftop, 4@ 0.125 MMBtu/hr	30	NO_x: 3.50 CO: 2.94 (total for all)	Regulation 1.02

1. Insignificant activities identified in District Regulation 1.02, Appendix A may be subject to size or production rate disclosure requirements.

2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.

4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.

6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

[27] These space heaters are comfort natural gas heaters, not process heaters, therefore Regulation 40 CFR 63, Subpart JJJJJJ is not applicable.

Attachment A
Calculation Methodology

Where specific emission factors or control efficiencies are referred to in the calculation methodologies shown below, MISA Metal Fabricating may substitute the values obtained as part of a District-approved stack test or District-approved manufacturer's guarantee for the affected equipment. If a guarantee is no longer valid for any reason MISA Metal Fabricating must use the District default value currently accepted for that filter type. MISA may, at any time, conduct stack tests to demonstrate control efficiencies that may be used in preference to what is shown here. These tests must be conducted in accordance with the stack test procedures outlined in Attachment B.

EMISSION UNIT U-1

E-02, E-03, E-04, E-05, E-24, E-25 at all times
E-06, E-07, E-08, E-09, E-19, E-15 when operating uncontrolled

For a single cutting job:

$$PM = t \times k \times v \times \delta \times h \times 60 \times c \times T \times (1-\eta)$$

PM = pounds of PM emission in period
t = steel thickness, inches
k = kerf width, inches (table 1)
v = cutting speed, inches/minute
δ = material density, lb/in^3
h = operating time, hours
c = number of cutting heads operating
T = cutting technique factor (table 2)
η = control efficiency (table 3)

Annual PM emissions are the sum of the emissions for each job.

E-06, E-07, E-08, E-09, E-19, E-15 when operating controlled

$$PM = 2.86\times10^{-7} \times cfm \times 60 \times H$$

PM = pounds of PM emission in period
cfm = fan rated cubic feet per minute
H = hours of operation of the control device
2.86×10^{-7} = guaranteed rate (0.002 grain/cfm) ÷ 7000 grains/lb

Table 1	**Kerf width for a given material thickness**									
Plate thickness (inch)	0.125	0.25	0.375	0.5	0.75	1.0	1.5	2.0	2.5	3.0
Kerf width (inch)	0.04	0.05	0.06	0.07	0.08	0.08	0.09	0.11	0.12	0.12

Table 2	**Cutting technique factor**		
Material	**Dry**	**Semi-Dry** (water ~ 2" under plate)	**Wet** (burner ~ 3" below water surface)
Aluminum	5	0.5	0.05
Steel	5	0.5	0.05
Stainless steel <1.5 inches	7	0.7	0.07
Stainless steel ≥1.5 inches	1	0.1	0.01
Brass	5	0.5	0.05

Table 3	**Control device efficiency**					
Emission Point	E-02	E-03	E-04	E-05	E-24	E-25
Control	0	0	0	0	0	98% †
Emission Point	E-06	E-07	E-08	E-09	E-19	E-15
Uncontrolled	0	0	0	0	0	0
Controlled	2.86×10^{-7} lb/scfm* **for entire time** of dust control fan operation (not just the duration of cutting operation)					

† This is the District-default efficiency for this filter type. No manufacturer's guarantee has been provided for this control device.

* This is the manufacture's guaranteed efficiency. This may be used while the conditions of the guarantee are met.

HAP emissions

HAP emissions must be calculated based on the reported HAP concentrations for each plate cut. Therefore, PM emission based on the mill specification sheet provided with the steel must be tracked:

$$HAP_j(lb/year) = \sum_i PM_i \, HAP_j(\%\ composition)_i$$

i =mill specification sheet for plate
j = the HAP being considered

That is, the annual emissions for any HAP is the sum of the total PM emissions for each plate, *i*, times the percentage of HAP *j* (*e.g.* chromium, nickel, etc.) listed in the mill specification sheet for that plate. When chromium is one of the HAPs emitted, it is assumed that of the total Cr emissions, 96% is Cr^{+3} and 4% is Cr^{+6} unless other data is provided to and approved by APCD.

E-02, E-03, E-04, E-05, E-06, E-07, E-08, E-09, E-15, E-19, E-24, E-25 cutting processes

$$NO_x = 1.54\times10^{-4} \times v \times 60 \times h$$

NO_x = pounds of NOx emission in period
v = cutting speed, inches/minute
h = operating time, hours
1.54×10^{-4} lb/inch = NOx emission factor [B. Broman, *et al*, The Swedish Institute of Production Engineering Research, *Emission of Fume, Nitrogen Oxides and Noise in Plasma Cutting of Stainless and Mild Steel*, ITW Document 1E-174-93, March 1994]

Combustion Emissions
E-02, E-03, E-04, E-05, E-24 fuel combustion

Emission factors for propane combustion (AP42, table 1.5-1)						
Pollutant	NO_x	PM	SO_2[28]	VOC	CO	HAP
lb/10^3gallon	13	0.7	1.03	1.0	7.5	N/D

Emission Source		**Description**	**Pollutant**	**Emission factor**	**Source**	**Control Effic.**
Unit	**Point**					
U-2	E-10	Spray booth	PM HAP	Mass balance method Spray gun transfer efficiency = 65%		90%[29]
	E-11	Drying enclosure	VOC	Mass balance method		N/A
U-3	E-12 E-13	Pangborn rotary shot blast	PM	0.004 $lb_{PM}/lb_{abrasive}$	Note a	98%[30]
			PM_{10}	0.86 lb_{PM10}/lb_{PM}		
			HAP	Note b	MSDS	
U-4 IA	E13 E17	Cold solvent parts washers: Maintenance area and Paint Booth area	VOC	Calculation, Note c	AP-42	N/A
			HAP	Note d	MSDS	N/A

[28] From Gaseous Fuel Emission Factors, SBCAPCD, 1/31/1997 [https://www.ourair.org/wp-content/uploads/sulfur01.pdf], where E_{so2} = 0.013 lb/MMBtu and AP42, table 1.5-1, footnote a, where $HHV_{propane} = 91.5\times10^6$ Btu/(10^3 gal). Then, $0.0113 \times 91.5\times10^6 = 1.03\ lb_{SO2} / 10^3$gal.
[29] APCD default control efficiency for flat panel filters.
[30] APCD default control efficiency for cartridge filters.

Emission Source		Description	Pollutant	Emission factor	Source	Control Effic.
Unit	**Point**					
U-5	E-16A E-18 E-20	Arku "Edge Breaker 4000" Grind line (2 stations) Repair grind	PM PM_{10} HAP	$0.0001.219\times10^{-4}$ lb/$lb_{thruput}$×(1-0.70) PM/2 PM×%HAP	Note e eng. est.	Notes f, g
	E-21 E-22 E-23	Hand welding (9 stations) Robot welder- Panasonic GH-1600 Robot welder- Panasonic WG-1400	PM PM_{10} HAP Mn Cr Ni	0.0052 lb/$lb_{electrode}$ = PM [lb/$lb_{electrode}$] 3.18×10^{-4} 1.0×10^{-6} [31] 1.0×10^{-6}	AP-42 §12.19 arc welding (E70S) MSDS	N/A
IA	IA	All natural gas combustion	NOx CO SO_2 VOC HAP_{total}	100 lb/mmcf 84 lb/mmcf 0.6 lb/mmcf 5.5 lb/mmcf 1.89 lb/mmcf	AP42, 1.4-1	N/A
			PM PM_{10}	0.52 lb/mmcf 0.52 lb/mmcf	EPA NEI guidance	

Notes:

a. *Confined Abrasive Blasting Cabinets/Rooms*, STAPPA/ALAPCO, chapter 3.

b. HAP is determined by multiplying the uncontrolled PM emission by the percentage of HAP in the material being cut. The typical steels in use here have the following HAP content: Manganese - 1.3%; Chromium - 0.25%; Nickel - 0.20%.

c. This is a fixed rate, based on the physical characteristics of the parts washers, equal to the sum of the three factors described in following paragraphs ii – iv. The annual emission rate, based on a typical petroleum-based low vapor pressure solvent containing 100% petroleum distillates, is 0.44 ton/year for each parts washer.

   i. **Open top evaporation rate**. Open surface evaporations can be calculated using the following equation:

$$q = A \cdot \left(\frac{Pa \cdot Mw}{R \cdot T}\right)\left(\frac{Di}{Z2 - Z1}\right)\ln\left(\frac{1}{1 - Yci}\right) \cdot EM$$

   ii. **Evaporation loss.** This type of parts washer cannot operate 8,760 hours a year. It has been determined that 10% operating time would be a conservative assumption for these cold solvent parts washers. [Evaporation = q×0.1]

   iii. **Carryout loss**. Cleaning solvent carried out by parts constitutes a big portion of total emissions. Though the amount of carryout solvent varies depending on the size and shape of the parts, we are able to estimate a carryout factor (carryout vs. evaporation) using AP-42 emission factors. According to AP-42, 4.6-2, a cold cleaner has a spray and bath evaporation emission 0.07 tons/unit/yr and a carryout emission 0.08

[31] Emissions are 100% trivalent chromium.

tons/unit/yr. 0.08/0.07 = 1.15. We will use a carryout factor 1.2 in our PTE calculation. [Carryout = Evap×1.2]

iv. **Waste solvent loss**. If the company does not recycle waste solvent, emissions for waste solvent should be included. According to AP-42, 4.6-2, a cold cleaner has working loss (evaporation & carryout) .15 tons/unit/yr and a waste solvent loss 0.18 tons/unit/yr. 0.18/0.15 = 1.2. We will use a waste solvent factor (waste solvent vs. working loss) 1.2. [Waste = Evap×1.2]

d. HAP is determined by multiplying the uncontrolled VOC emission by the percentage of HAP in the solvent. A typical petroleum-based low vapor pressure solvent has the following HAP content: ethylbenzene - 10%; naphthalene - 1%; xylene - 5%.

e. Estimates for uncontrolled PM and PM_{10} are based on measurements from *Comparison of dust emissions when using various 3M fibre discs and grinding wheels*, Flemish Institute for Technological Research, March 2016.

f. Controlled emissions are as follows:

Control Efficiency				
Source	**Control**	**PM**	**PM_{10}/HAP**	**Source**
E-16A	C-08	99.7%	0.002 grain/cfm	Manufacturers guarantee
E-18	C-09	95%	95%	APCD default
E-20	none	uncontrolled	uncontrolled	- - -

g. PM_{10} emissions are calculated based on PM emissions before the 70% fallout factor.

Attachment B
Manufacturer's Guarantees

Control Device	Description	Guarantee
C-01	ACT Model 3-12	Attachment B1
C-02	Torrit model ADFO 2-8	Attachment B2
C-03	Torrit model ADFO 2-8	Attachment B2
C-04	Torrit model ADFO 2-8	Attachment B2
C-06	Pangborn (Torrit) model PCO 2-8	Attachment B2
C-07	Camfil-Farr model GS-125Q	Attachment B3
C-08	Torrit model ADFO 2-8	Attachment B2
C-10	Torrit model ADFO 2-8	Attachment B2

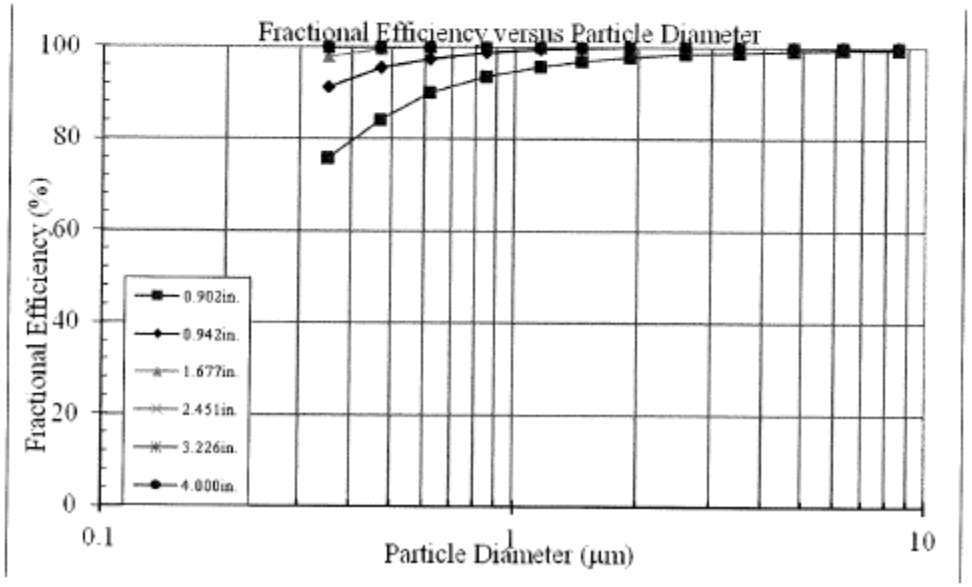
Attachment B1

A.C.T. DUST COLLECTORS

Air Cleaning Technology, Inc. 13310 Industrial Park Blvd. Suite 195, Plymouth, MN 55441
800-422-1316, Ph: 763-557-7162, Fax: 763-557-9731
www.actdustcollectors.com • info@actdustcollectors.com

ACT Nano-Elite Filter Media Efficiencies

DP (" H_2O)	0.902in.	0.942in.	1.677in.	2.451in.	3.226in.	4.000in.	*CME
Size Range (mm)	Fractional Efficiency (%)						
0.3-0.4	75.9	91.3	97.9	99.8	99.9	99.9	75.9
0.4-0.55	84.2	95.4	99.5	99.9	100.0	100.0	84.2
0.55-0.7	90.0	97.4	99.9	99.9	100.0	100.0	90.0
0.7-1.0	93.6	98.8	99.9	100.0	100.0	100.0	93.6
1.0-1.3	95.8	99.4	99.9	100.0	100.0	100.0	95.8
1.3-1.6	96.8	99.8	100.0	100.0	100.0	100.0	96.8
1.6-2.2	97.8	99.9	100.0	100.0	100.0	100.0	97.8
2.2-3.0	98.5	99.9	100.0	100.0	100.0	100.0	98.5
3.0-4.0	98.9	99.9	100.0	100.0	100.0	100.0	98.9
4.0-5.5	99.3	99.9	100.0	100.0	100.0	100.0	99.3
5.5-7.0	99.5	100.0	100.0	100.0	100.0	100.0	99.5
7.0-10.0	99.6	100.0	100.0	100.0	100.0	100.0	99.6



Test Report-ASHRAE Test Standard 52.2

Report #: **1917**
Test Date: **10/16/2009**

Test Requested By:	**Air Cleaning Technology, Inc.**
Manufacturer:	**Air Cleaning Technology, Inc.**
Product Name:	**ACT Nano-Elite**
Model Number:	**TF-18-2683153D**
Dimensions:	**13.8"H x 26.0"D Cylinder**
Number of Pleats:	**Minipleat**
Filter Description:	**White, Synthetic Minipleat Cylindrical Filter**
How Filter Obtained:	

Test Results

Test Air Flow Rate(CFM)/Velocity (FPM)	**853 cfm / 118 fpm**
Initial Resistance (in. WG)	**0.902"**
Final Resistance (in. WG)	**4.000"**
Minimum Efficiency Rating Value **(MERV)**	**MERV 15 @ 853 cfm**
Minimum Average Efficiency 0.3 to 1.0 Microns **(E1)**	**85.9**
Minimum Average Efficiency 1.0 to 3.0 Microns **(E2)**	**97.2**
Minimum Average Efficiency 3.0 to 10 Microns **(E3)**	**99.3**
Dust Fed to Final Resistance (grams)	**912.2 grams**
Dust Holding Capacity (grams)	**912.0 grams**
Arrestance:	**99.9%**

Vice President
Air Cleaning Technology
Date: 1-16-15

Attachment B2

Donaldson
Filtration Solutions

Donaldson Company, Inc.
Industrial Air Filtration
1400 West 94th Street
Bloomington, MN
55431-2370

Mailing Address:
P.O. Box 1299
Minneapolis, MN
55440-1299 U.S.A.

Tel 800.365.1331
Fax 952-887-3377
www.Donaldson.com
www.donaldsontorit.com

Misa Metals
Attn: Sonja Brumett
Address: 7101 International Drive
Louisville, KY 40258

November 10, 2014

Reference: Misa Metals Emission Guarantee for a Donaldson® Torit® Model DFO® 2-8 dust collectors with Ultra-Web® Filters

Equipment: One (1) DFO 2-8 collector s/n 10021900-1, equipped with Ultra-Web Filters
One (1) ADFO 2-8 collector s/n 2110038, equipped with Ultra-Web Filters
One (1) ADFO 2-8 collector s/n 754934-01, equipped with Ultra-Web Filters
One (1) ADFO 2-8 collector s/n 2217765, equipped with Ultra-Web Filters
One (1) ADFO 2-8 collector s/n 2217021, equipped with Ultra-Web Filters
One (1) PCO 2-8 collector s/n 928323-001, equipped with Ultra-Web Filters

Application: Laser cutting and grinding steel with pneumatic grinders

Dust: Steel

Inlet Loading: 2 grains per dry standard cubic foot

Air Volume: 2,500 CFM on Laser and 4,800 CFM on gringing

Gas Stream: Ambient

Collector Location: Indoors

Collector Exhaust: Indoors

The Donaldson® Torit® DFO® 2-8 Collector equipped with 8 Donaldson Torit Ultra-Web® filters offers a net filtration area of 1,520 square feet. Dividing the actual air volume by the filtration area provides a net air-to-media ratio not to exceed 3.2:1. Based on the Donaldson Torit Model DFO Collector being installed and operated in accordance with the DFO Installation, Operation, and Maintenance Manual; accepted industrial ventilation practices; and under the conditions stated above, we are offering the following emission guarantee utilizing Donaldson Torit Ultra-Web filters. This guarantee does not cover filter failure due to negligence or improper operation and specifically excludes failure due to exceeding the recommended air-to-media ratio;

14GL1004rev2

damage due to fire, corrosion, abrasion or physical abuse; wet or oily compressed air usage, or the lack of adequate compressed air for proper filter cleaning.

Emission: The maximum average particulate emissions in the discharge gas stream from the Donaldson Torit DFO Collector using the Donaldson Torit Ultra-Web filters will not exceed 0.002 grains per dry standard cubic foot over the life of the media.

The guarantee period ends after 4000 hours of operation or 12 months from the date of shipment, whichever is shorter. This provides ample time to confirm performance meets the stipulated thresholds in this document.

[The emissions portion of this warranty requires that all emission testing be performed by a qualified testing agency agreed upon by Donaldson Company and Misa Metals. Such testing will be performed in accordance with recognized testing procedures, agreed upon by both Donaldson Company and Misa Metals. Fees for the testing will be the responsibility of Misa Metals.]

Pressure Drop: Average pressure drop not to exceed 6 inches of water gauge on a continual basis as measured across Donaldson Torit Ultra-Web filter media and tube sheet of the Torit DFO collector.

During the warranty period, Donaldson Company reserves the right to make any modifications, adjustments or take other necessary corrective actions, at Donaldson's expense, should the guarantee not be met by equipment malfunction due to defects in materials and/or workmanship as supplied by Donaldson Company. In no event shall Donaldson Company be liable for incidental, special or consequential damages resulting from nonconformity. Failure to use genuine Donaldson replacement parts or changes to the original system, either process or engineering, will cancel this guarantee.

Regards,

Patrick L Hutchins

Pat Hutchins
Regional Sales Director

14GL1004rev2

Donaldson
Filtration Solutions

Donaldson Company, Inc.
Industrial Air Filtration
1400 West 94th Street
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55431-2370

Mailing Address:
P.O. Box 1299
Minneapolis, MN
55440-1299 U.S.A.

Tel 800.365.1331
Fax 952-887-3377
www.Donaldson.com
www.donaldsontorit.com

Misa Metals
Attn: Sonja Brumett
Address: 7101 International Drive
Louisville, KY 40258

October 16, 2014

Reference: Misa Metals Emission Guarantee for a Donaldson® Torit® Model DFO® 2-8 dust collector, s/n 10021900-1, built April, 2014 with Ultra-Web® Filters

Equipment	One (1) DFO 2-8 collector equipped with Ultra-Web Filters
Application	Grinding steel with pneumatic grinders
Dust	Steel
Inlet Loading	2 grains per dry standard cubic foot
Air Volume	4,800 CFM
Gas Stream	Ambient
Collector Location	Indoors
Collector Exhaust	Indoors

The Donaldson® Torit® DFO® 2-8 Collector equipped with 8 Donaldson Torit Ultra-Web® filters offers a net filtration area of 1,520 square feet. Dividing the actual air volume by the filtration area provides a net air-to-media ratio of 3.2:1. Based on the Donaldson Torit Model DFO Collector being installed and operated in accordance with the DFO Installation, Operation, and Maintenance Manual; accepted industrial ventilation practices; and under the conditions stated above, we are offering the following emission guarantee utilizing Donaldson Torit Ultra-Web filters. This guarantee does not cover filter failure due to negligence or improper operation and specifically excludes failure due to exceeding the recommended air-to-media ratio; damage due to fire, corrosion, abrasion or physical abuse; wet or oily compressed air usage, or the lack of adequate compressed air for proper filter cleaning.

Emission: The maximum average particulate emissions in the discharge gas stream from the Donaldson Torit DFO Collector using the Donaldson Torit Ultra-Web filters will not exceed 0.002 grains per dry standard cubic foot over the life of the media.

The guarantee period ends after 4000 hours of operation or 12 months from the date of shipment, whichever is shorter. This provides ample time to confirm performance meets the stipulated thresholds in this document.

14GL1004

[The emissions portion of this warranty requires that all emission testing be performed by a qualified testing agency agreed upon by Donaldson Company and Misa Metals. Such testing will be performed in accordance with recognized testing procedures, agreed upon by both Donaldson Company and Misa Metals. Fees for the testing will be the responsibility of Misa Metals.]

Pressure Drop: Average pressure drop not to exceed 6 inches of water gauge on a continual basis as measured across Donaldson Torit Ultra-Web filter media and tube sheet of the Torit DFO collector.

During the warranty period, Donaldson Company reserves the right to make any modifications, adjustments or take other necessary corrective actions, at Donaldson's expense, should the guarantee not be met by equipment malfunction due to defects in materials and/or workmanship as supplied by Donaldson Company. In no event shall Donaldson Company be liable for incidental, special or consequential damages resulting from nonconformity. Failure to use genuine Donaldson replacement parts or changes to the original system, either process or engineering, will cancel this guarantee.

Regards,

Pat Hutchins
Regional Sales Director

14GL1004

Attachment B3

camfil
AIR POLLUTION CONTROL

Misa Metals
7101 International Drive
Louisville, KY 40258

July 31, 2013

Emissions Performance Statement

C-07

GS12SQ dust collector with filter model GS-FR-325 used on metal dust, Typical airflow 6,000 CFM – ACR 1.54:1

Air-to-Cloth ratios not to exceed above listed for each application and inlet grain loading not to exceed 10 grains per DSCF. Normal operating range for the filter differential pressure is 1.5"-4.0" W.C.

Camfil APC warranties that the emissions from the collectors will not exceed 0.002 gr/dscf in overall particulate emissions, efficiency to be 99.99% on 0.5 micron particles and larger by weight. If a verification stack test is to be performed, it must be done at least 30 days after startup, and no more than 120 days after startup. If emissions level is not met, then Farr will be responsible for supplying a higher efficiency filter media to meet emissions level. Farr requests proper notification for any stack test in order to be present at the test. Farr will not be responsible for the costs associated with any stack tests.

The following conditions will apply:

(1) The collectors will be operated per industry standard practices, (Reference Collector Operating Instruction Manual)
(2) Upset conditions, ie loss of power to the cleaning system, excessive moisture, abrasion due to improper evacuation of dust collector hopper or exceeding air flow specified, may void this warranty.
(3) Review of inlet duct design by Camfil APC. ← ATTACHED
(4) Daily records will be kept on pressure drop across the filters. ← FACILITY DOES NOW
(5) Under no circumstances will Camfil APC be responsible for incidental or consequential damages.
(6) Genuine Camfil Farr filters specially selected for each application must be used.

INLET 10 grains

OUTLET WARRANTY 0.002 grains

REMOVAL 99.9+%

Camfil APC
3506 South Airport Road, Jonesboro, AR 72401
Tel (870) 933-8048, Fax (870) 933-8361
www.farrapc.com

HemiPleat Performance Warranty
For
Misa Metals

Metal Shot Blasting
AC ratio: Not to exceed 1.54:1 on HemiPleat® Gold Cones
GS12SQ for 6,000 cfm (Serial No. 724295)

Camfil APC warranties that the emissions from the collector will not exceed 0.002 gr/dscf (5 mg/cu meter) in particulate emissions. If a verification stack test is to be performed, it must be done at least 30 days after startup, and no more than 90 days after startup. If emissions level is not met, then Camfil APC will be responsible for supplying a higher efficiency filter media to meet emissions level. Camfil APC requests proper notification for any stack test in order to be present at the test. Camfil APC will not be responsible for the costs associated with any stack tests.

The following conditions will apply to this warranty:

(1) The collectors will be operated per industry standard practices, (Reference Collector Operating Instruction Manual)
(2) Upset conditions, loss of power to the cleaning system, excessive moisture, abrasion due to improper evacuation of dust collector hopper or exceeding air flow or temperature specified, may void this warranty.
(3) Review of inlet duct design by Camfil APC.
(4) Daily records will be kept on pressure drop across the filters.
(5) Under no circumstances will Camfil APC be responsible for incidental or consequential damages.

Tim Hudson

Filter MFG / Media Manager

camfil FARR
AIR POLLUTION CONTROL

Camfil Farr APC
Address: 3505 S. Airport Road, Jonesboro, AR 72401 Tel: 800-479-6801 Fax: 870-933-8361 • www.farrapc.com

Attachment C
Testing Requirements

If MISA chooses to perform testing to demonstrate control efficiency for a PM control device the following requirements must be met:

1. Devices of similar design may be represented by a common performance test contingent upon review and approval of the testing protocol by the District.

2. For control devices not hard piped to the process equipment, the owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District in the written test plan (stack test protocol).

3. Before conducting a performance test, the owner or operator shall submit a written performance test plan (stack test protocol). The plan shall include the EPA test methods that will be used for testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators that will be monitored during the performance test. The test plans shall be furnished to the District at least 30 calendar days prior to the actual date of the performance test. The Protocol Checklist shown on the next page for a Performance Test is attached to this permit. This checklist provides information that must be provided in the protocol.

4. The owner or operator shall provide the District at least 10 working days prior notice of any performance test to afford the District the opportunity to have an observer present.

5. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 calendar days following the actual date of completion of the performance test.

A complete protocol must include the following information

a. Facility name, location, and Plant ID number.
b. Responsible Official and environmental contact names.
c. Permit numbers that are requiring the test to be conducted.
d. Test methods to be used (*i.e.* EPA Method 1, 2, 3, 4, and 5).
e. Alternative test methods or description of modifications to the test methods to be used.
f. Purpose of the test including equipment and pollutant to be tested. (The purpose may be described in the permit that requires the test to be conducted or it may be to show compliance with a federal regulation or emission standard.)
g. Tentative test dates. (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.)
h. Maximum rated production capacity of the system.
i. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits) and justification of the planned production rate, if less than the maximum rate.
j. Method to be used for determining rate of production during the performance test;
k. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance.
l. Description of normal operation cycles, if applicable.
m. Discussion of operating conditions that tend to cause worse case emissions. This is especially important to clarify if worst case emissions do not result from the maximum production rate.
n. Process flow diagram.
o. The type and manufacturer of the control equipment, if any.
p. The process and/or control equipment parameters to be monitored and recorded during the performance test. These parameters may include pressure drops, flow rates, pH, temperature, *etc*. The values achieved during the test may be required during subsequent operations to describe the operating parameters that are indicative of good operating performance.
q. How quality assurance and accuracy of the data will be maintained, including sample identification and chain-of-custody procedures, audit sample provider, and number of audit samples to be used, if applicable.
r. Diameter of the pipe, duct, stack, or flue to be tested.
s. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet.
t. The number of traverse points to be tested for the outlet and the inlet if required, using Appendix A-1 to 40 CFR Part 60.

The Stack Test Review fee must be submitted with each stack test protocol.
The current fee is listed on the APCD website (louisvilleky.gov/APCD)